DOCUMENT RESUME

ED 158 717 IR 006 159

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TITLE Career Education Through an Informational Retrieval System by Ten Junior and Senior High Schools in Central Virginia.
PUB DATE 14 Apr 78
NOTE 30p.; Paper presented at the Regional Meeting of Division G of the American Educational Research Association (Richmond, Virginia, April 14, 1978)

EDRS PRICE MF-$0.83 Plus Postage. HC Not Available from EDRS.
DESCRIPTORS Attitudes; *Career Planning; *Dial Access Information Systems; *Evaluation Methods; Formative Evaluation; Information Retrieval; Measurement; *Performance Criteria; Secondary Schools; *Statistical Analysis; *Tables (Data)

ABSTRACT

The Computer-Assisted Career Information System (CACIS) is designed to assist high school pupils in planning toward a meaningful career. The system contains a data bank on each individual pupil including biographical data and information on the job market. The evaluation scheme in this report, the second of a three-year evaluation, stresses evaluation of performance by both counselors and pupils, and evaluation of attitude by the pupils. The Phase II evaluation scheme was designed to emphasize multivariate explanations and techniques. The research design involved the selection of participating as well as non-participating schools paired by grade with analyses conducted across those grades totally, as well as by grade. The measure selected for the career education treatment effects by the counselors and the CACIS was the standardized Career Maturity Inventory, which consisted of an Attitude Scale and a Competence Test. The other measures employed were Osgood's semantic differential factors of evaluative, potency, oriented-activity, and receptivity. Results are displayed in a series of tables. (VT)

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CAREER EDUCATION THROUGH AN INFORMATIONAL RETRIEVAL SYSTEM BY TEN JUNIOR AND SENIOR HIGH SCHOOLS IN CENTRAL VIRGINIA

by

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and

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A report presented at the regional meeting of Division G,
American Educational Research Association,
Richmond, Virginia, April 14, 1978.

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(This paper contains evaluative data only for the 1976-1977 academic year.)

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The Computer-Assisted Career Information System (CACIS) is a three year federally-funded project, designed to assist high school pupils in planning toward a meaningful career. Each guidance department has a "dial-up" terminal with the computer and its informational retrieval system located at the Valley Vocational-Technical Center, Fishersville, Virginia, near Waynesboro. The system contains a data bank on each individual pupil, including biography and career interest information; job placement information as mandated by a Virginia bill requiring active job placement by guidance counselors; local career resources as well as opportunities; current job openings; and career college financial aid information. Five junior or senior high schools in Augusta County, one senior and two junior high schools in the City of Staunton, and one junior and one senior high schools in the City of Waynesboro are being served by the system. The evaluation scheme in this report is for Phase II, 1976-77 of a three year phase.

The 1975-76 Phase I evaluation scheme was an incompleted enterprise, suggesting that an evaluation scheme concern itself around "performance objectives," stressing attitude, performance, and dissemination. The Virginia State Department of Education Title IV people also seemed to stress these three areas, particularly the last, and furthermore emphasizing its public relations aspects to include pupils, teachers, and parents. This evaluator for the 1976-77 Phase II evaluation scheme, on the other hand, saw the need to stress (1) performance, that is,

performance by both the counselors and pupils and (2) attitude by the pupils. While dissemination was not ignored in the evaluation scheme, it received minor concern, as will be indicated later. Finally, the Phase II evaluation scheme was designed to emphasize multivariate explanations and techniques and to avoid as much as possible the simpler, step-by-step bivariate explanations and techniques.

The measure selected for the career education treatment effects by the counselors and the CACIS was the standardized Career Maturity Inventory, 1973 by J. O. Crites, McGraw-Hill, publisher, which consisted of an Attitude Scale and a Competence Test. The latter had two sections, Occupational Information and Goal Selection, which were employed the remainder of the Competence Test being disregarded. These two should say, it was hypothesized, something about what the counselors and the CACIS were doing, if anything, with stored occupational information as well as career goal selection information. In his administration and use manual, Crites gave no reliability nor any validity coefficients, therefore some reliability and validity, factor analysis for construct validity, and other statistical studies were conducted on the Attitude Scale, Occupational Information, and Goal Selection measures by item with a large sample of pupil scores obtained from the field. The results are in the attached tables. However as a generalization here, the results speak well for Crites' work in the area of career education.

The other measure employed were Osgood's semantic differential factors of evaluative, potency, oriented-activity, and receptivity, organized into two constructs, Career Guidance Assistance at This School and Computer-Assisted Career Information System at This School.

Preliminary reliability and validity, factor analysis, and other statistical studies were conducted on the four factors under the two mentioned constructs with a large sample of pupil scores obtained from the field. These results are in the attached tables. However as a generalization here, the semantic differential indicated it would play a non-random role involving pupil perceptions about counselor performance as well as teacher and pupil perceptions about CACIS usefulness. The research design itself involved the selection of participating as well as non-participating schools paired by grade, 7, 8, 9, 10, 11, and 12. Analyses were conducted across these grades totally as well as by grade. The first "macro" assessment was a stepwise discriminant analysis ('Stepwise Discriminant Analysis,' Biomedical Computer Programs, UCLA, 1974, pp. 233-254). With the thirty-two paired antonyms, representing the four semantic differential factors of evaluative, potency, oriented-activity, and receptivity and the three standardized measures of Attitude, Occupational Information, and Goal Selection as three more variables, the statistical model became one with 35 variables and 12 groups. By not using the factor means, less variance was lost on the 32 paired antonym variables on the four semantic differential factors mentioned above. The results of this grand, overall assessment are in the attached tables. As a generalization, the thirty-five variables contributed toward statistical significance at least at the .01 level through their F-ratios and both the participating as well as the non-participating schools at all six grade levels separated themselves into their appropriate classifications at the .001 level. From this "macro" assessment, two other large assessments were conducted on the three standardized measures through variance and regression techniques and six

lesser "micro" assessments via paired t-tests between participating and non-participating schools at each grade level on the Career Guidance Assistance at This School and Computer-Assisted Career Information System at This School constructs. The results are in the attached tables.

In addition, simple chi square analyses were completed on the dissemination requirement among the general pupil as well as teacher populations within the three school districts serviced by the CACIS, namely, Augusta County and the cities of Staunton and Waynesboro. These results are on the attached tables.

From here on
print on one side only.

Table I
From the Computer Printout

	W-12	S-11	F-10	J-9	R-8	S-7	M-12	M-11	M-10	M-9	N-8	N-7
Waynesboro -12	14	0	1	0	1	0	0	2	2	1	2	5
Stuart's Draft -11	0	18	4	1	4	0	0	0	0	1	1	0
Fort Defiance -10	2	3	13	2	0	0	0	0	0	0	2	0
John Lewis -9	2	4	3	10	2	1	0	0	0	2	1	0
Riverheads -8	3	2	2	1	15	0	0	0	0	0	3	1
Shelburne -7	0	0	0	0	0	18	0	0	0	0	0	1
Montevideo -12	0	1	4	1	0	0	8	1	0	0	0	2
Montevideo -11	1	1	2	0	1	0	2	17	3	0	1	0
Montevideo -10	0	1	1	0	0	0	1	3	9	1	1	1
Montevideo -9	0	1	0	1	2	1	0	1	1	12	2	4
Nelson County -8	2	1	1	1	2	0	1	0	1	0	19	1
Nelson Elementary -7	4	3	1	0	1	1	1	4	3	3	4	20
	28	35	32	17	28	21	13	28	19	20	36	35

*This column represents original sample sizes.

Table I

*Comparisons; Attitude Scale: Crites' Means and S.D.'s and Valley Vocational-Technical Center Means, Standard Deviation, and Standard Errors of Means.

	Grade	7	8	9	10	11	12
1.	Combined[1]	29.21	32.84	34.29	35.31	36.02	37.23
		s.d.=(5.55)	(5.49)	(5.09)	5.28)	(5.24)	(5.19)
2.	Standardization Sample[2]		35.97	36.50	37.81	38.16	
3.	Disadvantaged (Ky. and Tenn.)[2]		28.90		34.06	35.23	
4.	American Indian (N.D.)[2]			28.83		33.20	
5.	Mexican American[2]			30.23			
6.	Negroes (Pa.)[2]			32.39			
7.	Stuart's Draft (n=20)						36.30(s = 3.618) (s.e. mean=.809)
8.	Riverheads (n=26)					36.20(s=3.892)	(s.e.=.763 mean)
9.	W. Wilson (n=25)				32.70(s=5.267)	(s.e. mean=1.053)	
10.	John Lewis (n=28)			34.00 (s=6.180)	(s.e. mean=1.212)		
11.	Fort Defiance (n=28)		30.10 (s=6.508)	(s.e.mean=1.230)			
12.	Kate Collins (n=23)	31.00 (s=4.841)	(s.e. mean=1.009)				
13.	All Schools (7-12) (n=148)	Mean=33.383 (s=5.242)	(s.e. mean=.431)				

*This is but weak, descriptive data and few inferences, none scientific, can be drawn from these data. These data compiled October, 1976.

[1]J.O. Crites, Career Maturity Inventory Manual, McGraw-Hill, 1973, p. 39. Data from several states; n's range 1,690 to 3,770.

[2]Ibid, p. 6; s.d.'s not given

TABLE I

Chi Square Goodness - of - Fit Test, Dissemination, CACIS Project, Pupils in Participating Schools, June 1 and 2, 1977 Data.

Knows About	Does Not Know About
*(155.5)	*(155.5)
194	177

*Expected Frequencies

Computed Chi Square was 19.064, with df=1 and tabled chi square being 10.827 at .001 level, computed chi square significant at that level.

Vote Counts Through Statistical Significance

	Standardized Measures			Semantic Differential								
				Career Guidance				CACIS				
	Attitude	Occup Info.	Goal Selection	Ev.	Pot.	Or.Ac.	Recep.	Ev.	Pot.	Or.Ac.	Recep.	Total Counts (11 variables)
Waynesboro - 12	.025 (not in desired direction)											0
Stuart's Draft - 11				.05				.0005	.0005	.0005	.0005	5
F. Defiance - 10		.025						.005	.05		.005	4
J. Lewis - 9		.005									.05	2
Riverheads - 8	.025	.0005						.0005				3
Shelburne - 7	.0005					.05		.0005		.0005	.0005	5
	3/6	3/6		1/6		1/6		4/6	2/6	2/6	4/6	

Table II

T-Tests, Participating v. Non-Participating Schools by Grade on Standardized Measures of Attitude Occupational Information, and Goal Selection

School	Grade	Sample Size		Attitude					Occupational Information					Goal Selection				
		n	$\sqrt{n}$	Mean	S.D.	S.E. Mean	t	p(1)	Mean	S.D.	S.E. Mean	t	p(1)	Mean	S.D.	S.E. Mean	t	p(1)
Waynesboro	12	28	5.291	34.535	5 990	1.132	-2.276	(2) .025	13.964	6.483	1.225	- .617	(3) n.s.	11.607	5.983	1.130	- .772	(3) n.s.
Montevideo	12	17	4.123	38.647	5.808	1.408			14.941	4.322	1.048			12.764	4.054	.983		
Stuart's Draft	11	29	5.385	36.172	5.548	1.030	-1.038	(3) n.s.	16.758	2.544	.472	- .696	(3) n.s.	14.206	3.468	.644	- .199	(3) n.s.
Montevideo	11	29	5.291	37.464	3.696	.698			17.214	2.079	.392			14.357	2.129	.402		
Fort Defiance	10	22	4.690	36.681	4.051	.863	1.114	(3) n.s.	17.454	1.534	.328	2.139	.025	14.409	2.442	.520	1.231	(3) n.s.
Montevideo	10	18	4.242	35.166	4.462	1.051			15.888	2.784	.656			13.277	3.195	.753		
John Lewis Jr.	9	25	5.000	35.520	6.097	1.219	.794	(3) n.s.	16.320	2.719	.543	2.790	.005	13.600	3.329	.665	2.364	.025
Montevideo	9	25	5.000	33.880	3.811	.762			14.040	3.061	.612			11.600	2.629	.525		
Riverheads	8	27	5.196	33.444	7.592	1.518	2.330	.025	15.111	2.470	.475	3.925	.0005	12.629	2.675	.515	1.497	(3) n.s.
Nelson County	8	29	5.385	28.551	7.822	1.452			11.955	3.505	.650			11.482	3.066	.569		
Shelburne Jr.	7	19	4.358	37.210	3.473	.796	5.142	.0005	15.368	2.139	.475	1.427	(3) n.s.	12.000	2.886	.662	1.640	(3) n.s.
Wilson Elem.	7	45	6.708	30.622	6.746	1.005			14.302	3.878	.578			10.666	3.183	.474		

(1) p is on one-tailed test.
(2) not in desired direction, that is, non-participating school mean higher with statistical significance than participating schools.
(3) alpha set at .05 on a one-tailed test.

Table II

Table I, computer output figures represent the number of pupils so classified through discriminant analysis. Collapsed into a 2x2 statistical contingency table, as indicated below, the following chi square analysis for significance was performed.

	Inclusion or Exclusion into Appropriate Group		
	Inclusion (121.634)* Expected	Exclusion (28.365)	
Participating Pupils	126	24	150
	(131.365)	(18.173)	
Non-Participating Pupils	127	35	162
	253	59	312

* expected frequencies in parentheses.

Computed chi square = 16.554

Tabled chi square with df=1 is 3.841 at alpha .05 and 10.827 at alpha .001.

Therefore, with all thirty-five variables significant at least at $p \leq .01$ and thus all contributing to the regression, the discriminant analysis derived from Table I and collapsed into the dichotomies of participating and non-participating pupils as well as included-excluded pupils within the participating - non-participating school category yielded statistical significance at the .001 level. In short, the six grade level participating school pupils came from a different population than the six grade level non-participating school pupils, as expected on the thirty-five variables utilized.

Table II

Kuder-Richardson #20 Reliability Coefficients on Attitude Scale.

Stuart's Draft (Grade 12) (n=20)	.0459
Riverside (Grade 11) (n=26)	.179
W. Wilson (Grade 10) (n=25)	.560
John Lewis (Grade 9) (n=26)	.686
Fort Defiance (Grade 8) (n=28)	.719
Kate Collins (Grade 7) (n=23)	.476
All Grades (7-12) (n=148)	.556

Table III

T-Tests, Participating v. Non-Participating Schools by Grade on Osgood's Semantic Differential Factor, Evaluation, on Constructs "Career Guidance at This School" and "Computer-Assisted Information System at this School"

School	Grade	Sample Size		Career Guidance at This School — Evaluative					Computer-Assisted Career Information System at this School — Evaluative				
		n	$\sqrt{n}$	Mean	S.D.	S.E. Mean	t	p(1)	Mean	S.D.	S.E. Mean	t	p(1)
Waynesboro	12	28	5.291	4.771	1.46	.275	- .456	(3) n.s.	4.000	1.464	.276	.045	(3) n.s.
Montevideo	12	17	4.123	4.994	1.682	.407			3.980	1.444	.350		
Stuart's Draft	11	29	5.385	5.892	1.168	.216	1.696	.05	5.932	1.305	.242	6.115	.0005
Montevideo	11	28	5.291	5.327	1.351	.255			3.015	2.032	.384		
Fort Defiance	10	22	4.690	5.644	.999	.211	.625	(3) n.s.	5.158	1.342	.286	3.507	.005
Montevideo	10	18	4.242	5.415	1.275	.300			3.208	2.344	.479		
John Lewis Jr.	9	25	5.000	5.760	1.307	.261	.064	(3) n.s.	4.880	1.341	.268	.712	(3) n.s.
Montevideo	9	25	5.000	5.645	1.210	.242			4.560	1.814	.362		
Riverheads	8	27	5.196	5.637	1.432	.275	.205	(3) n.s.	5.830	1.208	.232	3.831	.0005
Nelson County	8	29	5.385	5.221	1.432	.265			4.554	1.307	.242		
Shelburne Jr.	7	19	4.358	5.695	1.342	.307	.317	(3) n.s.	5.951	1.157	.265	4.423	.0005
Wilson Elem.	7	45	6.708	5.052	1.520	.226			4.164	2.062	.307		

(1) p is on a one-tailed test.
(2) not in desired direction, that is, non-participating school mean higher with statistical significance than participating school.
(3) alpha set at .05 on a one-tailed test.

TABLE III

Spearman Correlation, Career Guidance Construct versus Computer-Assisted Career Information Construct on Evaluation Factor, Using Participating School Means.

	Career Guidance	Computer-Assisted
Waynesboro - 12	4.771	4.000
Stuart's Draft - 11	5.892	5.932
Fort Defiance - 10	5.644	5.158
John Lewis - 9	5.760	4.880
Riverheads - 8	5.637	5.830
Shelburne - 7	5.695	5.951

r_s=.486, with n=6, tabled r_s=.829 at alpha .05 on one-tailed test, thus no signifiance.

Non-Participating Schools

	Career Guidance	Computer-Assisted
Montevideo - 12	4.994	3.980
Montevideo - 11	5.327	3.015
Montevideo - 10	5.415	3.208
Montevideo - 9	5.645	4.560
Nelson County - 8	5.221	4.554
Wilson El. - 7	5.052	4.164

r_s=.143 and with tabled value as above, no significance.

Table III

Multiple Correlation Coefficients, Occupational Information and Goal Selection, Parts II and III, Competency Test as Predictor Variables to Predict Attitude on Attitude Scale

	R	Standard Error of Estimate		F	
Stuart's Draft (Grade 12) (n=20)	.566	3.231	$df_{2,17}$	3.999	($p \leq .05$)
Riverside (Grade 11) (n=26)	.411	3.544	$df_{2,23}$	2.343	(n.s.)
W. Wilson (Grade 10) (n=25)	.314	5.193	$df_{2,22}$	1.211	(n.s.)
John Lewis (Grade 9) (n=26)	.603	5.237	$df_{2,23}$	6.585	($p \leq .01$)
Fort Defiance (Grade 8) (n=28)	.334	6.308	$df_{2,25}$	1.570	(n.s.)
Kate Collins (Grade 7) (n=23)	.485	4.539	$df_{2,20}$	3.081	(n.s.)
All Grades (7-12) (n=148)	.445	5.098	$df_{2,135}$	17.913	($p \leq .01$)

These samples within these schools were pupils who received treatment effects of Career Guidance as well as Computer-Assisted Career Information System.

Table IV

T-Tests, Participating v. Non-Participating Schools by Grade on Osgood's Semantic Differential Factor, Potency, on Constructs, "Career Guidance at This School" and "Career-Assisted Information System at This School"

School	Grade	Sample Size		Career Guidance at This School — Potency					Computer-Assisted Career Information System at this School — Potency				
		n	$\sqrt{n}$	Mean	S.D.	S.E. Mean	t	p(1)	Mean	S.D.	S.E. Mean	t	p(1)
Waynesboro	12	28	5.291	4.533	1.233	.233		(3)	3.900	1.066	.201		(3)
Montevideo	12	17	4.123	4.600	1.600	.388	- .148	n.s.	3.400	1.200	.291	1.445	n.s.
Stuart's Draft	11	29	5.385	5.066	1.300	.241		(3)	5.600	1.366	.253		
Montevideo	11	28	5.291	5.033	1.466	.291	.087	n.s.	2.733	2.066	.390	6.178	.0005
Fort Defiance	10	22	4.690	5.066	1.333	.284		(3)	4.566	1.566	.333		
Montevideo	10	18	4.242	5.000	1.566	.369	.965	n.s.	3.133	1.900	.477	2.470	.05
John Lewis Jr.	9	25	5.000	5.333	1.126	.225		(3)	5.300	1.600	.320		(3)
Montevideo	9	25	5.000	4.800	1.400	.280	.000	n.s.	3.466	1.833	.366	- .481	n.s.
Riverheads	8	27	5.196	5.266	1.233	.237		(3)	5.000	1.166	.224		(3)
Nelson County	8	29	5.385	5.166	1.633	.303	.261	n.s.	4.600	1.466	.272	1.142	n.s.
Shelburne Jr.	7	19	4.358	3.866	1.200	.275		(3)	3.736	1.300	.298		(3)
Wilson Elem.	7	45	6.708	4.366	1.700	.253	-1.344	n.s.	3.600	1.933	.288	.330	n.s.

(1) p is on one-tailed test.
(2) not in desired direction, that is, non-participating school mean higher with statistical significance than participating school.
(3) alpha set at .05 on a one-tailed test.

TABLE IV

Pretest-Posttest, Participating Schools,
Overall Assessment on Crites' Attitude.

	October, 1976 Pretest Data (n = 148)	May, 1977 Posttest Data (n = 150)
Mean	33.383	35.594
S.D.	5.242	5.458
S.E. Mean	.432	.446

t = 1.613. Tabled t at infinity for alpha at .10 was 1.282 and for alpha .05 was 1.645. Therefore, computed t significant at .10 level, but not the desired .05 level.

The population for this overall test were the following participating schools:

AUGUSTA COUNTY	CITY OF STAUNTON	CITY OF WAYNESBORO
Buffalo Gap High School	Robert E. Lee High School	Waynesboro High School
Fort Defiance High School	John Lewis Jr. High School	Kate Collins Jr. High School
Riverheads High School	Shelburne Jr. High School	
Stuarts Draft High School		
Wilson Memorial High School		

Samples by class were obtained from the following schools by grade as indicated.

October, 1976	May, 1977
Stuarts' Draft - 12	Waynesboro - 12
Riverheads - 11	Stuarts' Draft - 11
W. Wilson - 10	Fort Defiance - 10
Fort Defiance - 9	John Lewis - 9
John Lewis - 8	Riverheads -8
Kate Collins - 7	Shelburne - 7

Table V

T-Tests, Participating v. Non-Participating Schools by Grade on Osgood's Semantic Differential Factor, Oriented-Activity, on Constructs, "Career Guidance at This School and "Career-Assisted Information System at This School"

School	Grade	Sample Size		Career Guidance at This School — Oriented Activity					Computer-Assisted Career Information System at this School — Oriented Activity				
		n	$\sqrt{n}$	Mean	S.D.	S.E. Mean	t	p(1)	Mean	S.D.	S.E. Mean	t	p(1)
Waynesboro	12	28	5.291	4.700	1.200	.226	.000	(3) n.s.	3.833	1.366	.258	1.060	(3) n.s.
Montevideo	12	17	4.123	4.700	1.733	.420			3.466	.966	.234		
Stuart's Draft	11	29	5.385	5.333	1.666	.309	- .375	(3) n.s.	5.500	1.533	.284	4.573	.0005
Montevideo	11	28	5.291	5.366	1.433	.270			3.300	2.066	.390		
Fort Defiance	10	22	4.690	5.366	1.033	.220	1.098	(3) n.s.	4.366	1.533	.326	1.196	(3) n.s.
Montevideo	10	18	4.242	5.466	1.466	.345			3.666	2.066	.487		
John Lewis Jr.	9	25	5.000	4.700	2.133	.426	-1.163	(3) n.s.	4.300	2.166	.433	.286	(3) n.s.
Montevideo	9	25	5.000	5.333	1.700	.340			4.133	1.966	.393		
Riverheads	8	27	5.196	4.933	1.233	.237	.640	(3) n.s.	4.700	1.566	.301	.170	(3) n.s.
Nelson County	8	29	5.385	4.700	1.500	.278			4.633	1.366	.253		
Shelburne Jr.	7	19	4.358	4.633	1.566	.359	.909	(3) n.s.	5.566	1.366	.313	4.698	.0005
Wilson Elem.	7	45	6.708	5.033	1.733	.258			4.133	.666	.099		

(1) p is on one-tailed test.
(2) not in desired direction, that is, non-participating school mean higher with statistical significance than participating school
(3) alpha set at .05 on a one-tailed test.

Table VI

T-Tests, Participating v. Non-Participating Schools by Grade on Osgood's Semantic Differential Factor, Receptivity, on Construct, "Career Guidance at This School" and "Computer-Assisted Information System at This School"

School	Grade	Sample Size		Career Guidance at This School — Receptivity					Computer-Assisted Career Information System at this School — Receptivity				
		n	$\sqrt{n}$	Mean	S.D.	S.E. Mean	t	p(1)	Mean	S.D.	S.E. Mean	t	p(1)
Waynesboro	12	28	5.291	4.500	1.400	.264	.357	(3) n.s.	3.766	1.000	.189	.259	(3) n.s.
Montevideo	12	17	4.123	4.333	1.600	.388			3.666	1.400	.339		
Stuart's Draft	11	29	5.385	5.066	1.666	.309	.302	(3) n.s.	5.333	1.433	.266	6.520	.0005
Montevideo	11	28	5.291	4.933	1.666	.314			2.500	1.833	.346		
Fort Defiance	10	22	4.690	5.100	1.266	.269	1.080	(3) n.s.	4.833	1.300	.277	3.016	.005
Montevideo	10	18	4.242	4.566	1.766	.416			3.400	1,666	.392		
John Lewis Jr.	9	25	5.000	5.066	1.900	.380	-.071	(3) n.s.	5.000	2.033	.406	1.961	.05
Montevideo	9	25	5.000	5.100	1.466	.293			3.933	1.833	.366		
Riverheads	8	27	5.196	5.333	1.333	.256	.497	(3) n.s.	5.266	1.466	.282	1.005	(3) n.s.
Nelson County	8	29	5.385	4.800	1.533	.284			4.866	1.600	.297		
Shelburne Jr.	7	19	4.358	5.533	1.533	.351	1.825	.05	5.500	1.566	.359	4.176	.0005
Wilson Elem.	7	45	6.708	4.666	2.166	.322			3.466	2.233	.332		

(1) p is on one-tailed test.
(2) not in desired direction, that is, non-participating school mean higher with statistical significance than participating school.
(3) alpha set at .05 on a one-tailed test.

Descriptive Comparative Data on Crites' Standardized Measures on Attitude, Occupational Information, and Goal Selection, Certain T-Tests, and Stepwise Regression Analysis on the measures.

A.	Attitude		Occup. Info.		Goal Selec.	
	Mn.	s.d.	Mn.	s.d.	Mn.	s.d.
1. New Castle, Va. (1975 data) (8,9,10,11,12) (for comparison only) (n=298)	32.889	5.541	13.567	4.279	11.516	5.970
2. Non-Participating Schools (n=133) (October, 1976 data) (7,9,10,11,12, -8)	34.338	6.036	14.436	3.681	12.330	3.156
3. Participating Schools (n=150) (May, 1977 data) (7,8,9,10,11,12)	35.593	5.607	15.829	2.981	12.928	3.464
4. T-Test between Participating and Non-Participating Schools.	t = 1.810 (.05) (one-tailed test)		t = 2.132 (.025) (one-tailed test)		t = 1.529 (.10) (one-tailed test and indadequate for .05)	

B. Did Occupational Information and Goal Selection predict Attitude (.05)?
1. For Participating Schools R = .349 (.01) (one-tailed test).
2. For Non-Participating Schools R = .574 (.01) (one-tailed test).